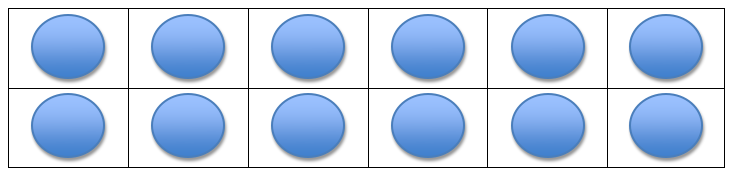
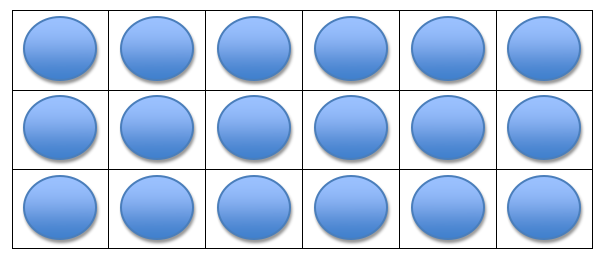
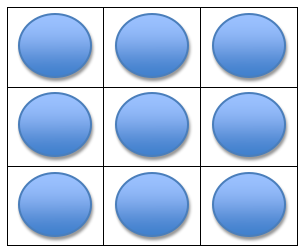
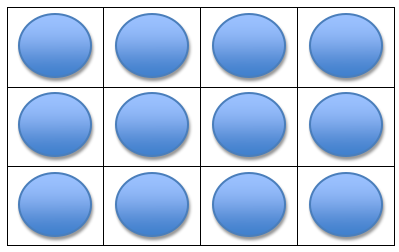
1.) What multiplication problem is represented?

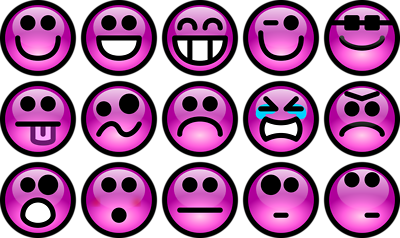
6 + 6 + 6 + 6

1. 6 x 4 = 24
2. 4 x 6 = 22
3. 6 x 5 = 30
4. 6 x 6 = 18

2.) Which array model shows   
3 x 6 = 18?

1. 
2. 
3. 
4. 

3.) What multiplication fact is represented?



**3 x 5 = 15 or 5 x 3 = 15**

4.) What multiplication fact is represented?

2 + 2 + 2 + 2 + 2 + 2 + 2 + 2

1. 7 x 3 = 21
2. 2 x 8 = 16
3. 2 x 7 = 14
4. 2 x 6 = 12

5.) What multiplication fact does the picture below represent?

**3 x 7 = 21 or 7 x 3 = 21**



6.) There are 6 kittens. Each kitten has 4 legs. How many legs are there? Draw a picture and show your work.

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| **There are 24 legs.**  Representations and drawings will vary. Students should demonstrate an understanding of there being 6 groups of four.  Responses will be individually evaluated for conceptual understanding, procedural fluency, reasoning, and problem solving skills. |

**7.) Read the number story. Draw a picture to represent the number story.**

Mrs. Huston has 3 boxes of crayons. There are 12 crayons in each box.

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| Representations and drawings will vary. Students should demonstrate an understanding that there are 3 groups of 12, totaling 36 crayons. Responses will be individually evaluated for conceptual understanding, procedural fluency, reasoning, and problem solving skills. |

How many crayons does Mrs. Huston have?

**3 x 12 = 24 or 12 x 3 = 24**

**8.) Shade in the array to represent the number story.**

My bookshelf has 5 rows of books with 7 books on each row.

Shading within the array to the left will vary. Students should shade either 7 rows of 5 squares, or 5 rows of 7 squares. Shading can be placed anywhere on the 10 x 10 array. Responses will be individually evaluated for conceptual understanding, procedural fluency, reasoning, and problem solving skills.

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How many books do I have?   
**5 x 7 = 35 or 7 x 5 = 35**

**9.) Solve this multiplication fact, then show it in another way (array, equal groups, repeated addition)**

3 x 8 = **24**

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| Representations and drawings will vary. Students should accurately represent 3 x 8 = 24 by using an array, grouping, or repeated addition. Responses will be individually evaluated for conceptual understanding, procedural fluency, reasoning, and problem solving skills. |

**Extend your thinking!**

**10.) Write your own word problem that uses the fact 2 x 6:**

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| Responses will vary. Students  should write a word problem that accurately portrays a scenario where there are 2 groups of 6 or 6 groups of two. Responses will be individually evaluated for conceptual understanding, procedural fluency, reasoning and problem solving skills. |

**11.) If you eat 2 cookies every day, how many cookies will you eat in one week? Use pictures, numbers, or words to explain your thinking.**

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| **2 x 7 = 14 or 7 x 2 = 14**  Representations and drawings will vary. Students should demonstrate an understanding that in order to solve this problem, they must first determine that there are 7 days in one week. Then, they should demonstrate knowledge that they will need to multiply 2 x 7 to get the answer. Responses will be individually evaluated for conceptual understanding, procedural fluency, reasoning, and problem solving skills. |

**Challenge: If you eat 2 cookies every day, how many cookies will you eat in 2 weeks?**

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| **2 x 14 = 28 or 14 x 2 = 28**  Representations and drawings will vary. Students should demonstrate an understanding that in order to solve this problem, they must first determine that there are 14 days in 2 weeks. Then, they should demonstrate knowledge that they will need to multiply 2 x 14 by using an array, equal groups, repeated addition, etc. Responses will be individually evaluated for conceptual understanding, procedural fluency, reasoning, and problem solving skills. |